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MARKETING ACTIVITIES

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Seed Testing for Uniformity

By W. A. Davidson and Oren L. Justice

When a farmer or a gardener handles a sample of seed he will plant this spring he will likely have two good questions in mind: "Is it pure seed?" and "Will it grow?"

This is the seed on which he will count for a good harvest. With the approach of the planting season his hopes are probably as bright as pictures in a seed catalogue. But on the basis of visual examination alone, even the experts would be unable to answer the questions. And there was a time when seed was not labeled with this information, and advertising was highly exaggerated--especially the advertising carried in the flashy seed catalogues.

Now, however, for most planters the desired information will be furnished on the label if the seed has been analyzed and tested as required under the State and Federal Seed laws. If there has been compliance with the laws, the label will tell the planter whether the seed has the ability to fulfill his hopes.

Seed Quality Vastly Improved

Since the enactment of the Federal Seed Act in 1939, and because of the vigorous enforcement of this Act and the State seed laws, the overall quality of seed is vastly better than it used to be. Cooperation from seed dealers, advanced processing techniques, and development of better varieties at experiment stations have also contributed heavily to the improvement.

Title III of the Federal Seed Act prohibits the importation of agricultural and vegetable seed unless it is up to certain standards of purity and germination. This stopped a lot of trash from coming into the country to be sold as seed and thus it improved the average quality.

However, there are still several obstacles which must be overcome before farmers and tradesmen will be fully benefited by protective legislation. Last year about 1,000 complaints of violations of the Federal Seed Act were investigated, and criminal action was recommended in 34 of them. The Seed Act Division, responsible for enforcement of the Federal legislation, works in close cooperation with State agencies in an effort to improve the labeling of seed in commercial channels.

The names of varieties used to be embellished with a lot of "super colossal" words. But these are largely a thing of the past. The Federal Seed Act requires labeling as to variety to be confined to the recognized variety name. Of course, a variety may be known under different names in different localities. Interested agencies have been asked to help standardize these names so buyers of seed will know what to ask for and seed dealers will know what to deliver. Progress is being made along

this line. Seed is tested in the field to determine whether it is truthfully labeled as to variety, because seeds of different varieties are usually indistinguishable from their appearance.

The Seed Act Division has launched a campaign of research and investigation to determine both the causes for variations in results and the methods by which these differences may be prevented. This program is authorized under the Research and Marketing Act as Project 355 and is entitled "Standardization and Coordination of Methods of Sampling and Testing Seeds."

With the expansion of the seed trade and the increasing number of commercial seed-testing laboratories, the importance of standardization with respect to procedures, equipment and interpretations becomes apparent. Before uniform results can be expected from laboratory tests, it is necessary that these factors be standardized as nearly as possible so that Federal, State, and commercial analysts can follow them uniformly. When this is done, greater reliance can be placed upon the results of tests, seed labels, and invoices, and both seed buyers and dealers will be benefited.

Commercial Laboratories Most Numerous

Seed laboratories in the United States fall into three separate classifications based upon the sponsoring agencies. Most numerous are the private or commercial laboratories that are maintained and operated by individuals or commercial organizations, such as seed companies engaged in buying and selling seed. The commercial laboratories test seeds for private individuals on a fee basis, though often they are maintained solely for the use of the seed company which operates the laboratory. Many of the commercial seed analysts are members of the Society of Commercial Seed Technologists. The second group of laboratories is composed of State seed-testing laboratories maintained and operated either through the State Department of Agriculture, the State experiment station, or the State agricultural college. In most States the laboratories are established primarily for testing seed in the administration of the State seed law but they also perform service testing for farmers and seed dealers.

The third group, the Federal seed-testing laboratories, are maintained and operated by the Department of Agriculture for the purpose of testing seed in the administration of the Federal Seed Act. These laboratories test seed offered for importation into the United States to determine whether it meets the standards of quality required, and also seed that is shipped in interstate commerce for the purpose of checking on the truthfulness of labeling. The Federal and State seed laboratories are united in the Association of Official Seed Analysts.

In testing seed for purity, seed analysts are concerned with four factors: The percentages of pure seed, inert matter, weed seed and other crop seed. The purity test is painstaking, accomplished by hand, or rather by hand manipulation of forceps and close inspection of each individual seed. Usually it is necessary to examine the seed by use of a

UPPER LEFT--Seeds are tested in the field for positive identification. UPPER RIGHT--Radish seeds showing high viability are taken from the germination cabinet at the Federal seed testing laboratory at Beltsville, Md. LOWER LEFT--Unknown seeds are compared with some of the 30,000 known samples at the Beltsville seed herbarium. Identification is still difficult. LOWER RIGHT--Using field peas and a vacuum counter and spacer a technologist prepares a "rolled towel" germination rest that will take 8 days.

hand lens or magnifying glass. This is particularly true in the analyses of such kinds as tiny vegetable, grass, and clover seeds. The seeds are generally spread out on the flat top of a work board covered with paper of color contrasting with that of the sample. There the pure seed is separated from the weed seed, inert material, and other agricultural and vegetable seeds. Frequently, the tiny weed seeds are so deceptively shaped or colored that only a highly trained eye can classify them swiftly and accurately. They are usually of practically the same general size as the agricultural or vegetable seeds in which they are found. Such noxious-weed seeds as quackgrass, bindweed, Johnson grass, and dodder are particularly difficult to detect as they are usually found in agricultural or vegetable seeds having similar characteristics.

Uniformity Sought Through Research

With regard to purity analyses, there are certain provisions in the rules for seed testing that are not entirely specific and which are difficult to apply in a uniform manner. The principal reason for this vagueness in the rules is due to the meager data upon which specific provisions can be based. It is hoped that research under RMA Project 355 will soon remedy this situation. As an example, the rules provide that agricultural and vegetable seeds that are broken, insect damaged, or diseased shall be classified as pure seed if more than one-half of the seed remains, while pieces of one-half of the original size or less are to be classified as inert matter. Insects often devour seeds of legumes from the inside and leave only a slight opening or no opening at all to the exterior. Obviously this presents a serious problem in classifying seeds of samples that contain relatively large percentage of these insect-damaged seeds. One analyst may very well classify certain of these seeds as pure seed, and another inert material.

Owing to the fact that climatic and soil conditions under which seed will be planted in the field are variable and cannot be predicted by seed technologists, it is necessary that germination tests be based upon a standard laboratory procedure. In general, the rules for seed testing are based on the principle of determining the maximum germination under specified standard laboratory conditions. Only seedlings that are expected to produce normal plants under favorable growing conditions are included in determining the percentage of germination. Perhaps the outstanding trend in changes in the rules for seed testing concerns the interpretation of normal and abnormal seedlings in conducting germination tests. In the early days of seed testing almost all seedlings which produced a root or shoot strong enough to break the seed coat were considered as germinated. But now the experts have found out that not all that germinates in the test will grow in the field. So there has been a gradual change from the old definition of germination to a consideration of only those seedlings which are expected to produce normal plants under favorable conditions. This point of progress, however, has greatly contributed to variation in results in laboratory tests. The reason for this is that in many kinds of seed there is no marked line of distinction between normal and abnormal seedlings. One of the principal objectives of the research project which is under way is to standardize lines of demarcation by which seed analysts can reach greater agreement.

A purity analysis on a sample of seed can be accomplished within a few hours after it has been received in the laboratory. However, present methods require from 6 to 35 days to complete germination tests, the time depending upon the kind of seed and the treatment to which it must be subjected to overcome dormancy. For several years efforts have been made to find methods of testing seeds for germination or determining viability by which the time element can be greatly reduced. This has been particularly true in Europe where considerable research has been conducted.

Enzyme Reaction Utilized in Germination Test

There, studies have been made to utilize the basic chemical difference between living and dead seeds. Living seeds contain certain enzymes which are associated with the germination process; dead seeds do not contain these active enzymes. Research has been aimed at finding dyes which will take advantage of this condition with the thought that a method can be developed which can be applied by seed technologists. The earlier work was done with selenium compounds which were colorless but produced a red coloration in certain tissues of live seed when cut or injured and immersed in the solution. These chemicals were soon discarded because of their high toxicity to the workers, and because of their volatile nature. Within the last few years, a new group of compounds known as tetrazolium salts has been discovered which gives the same color reaction (but different chemical changes) as the selenium compounds. They are non-toxic and do not emit objectionable odors. It is believed that these compounds have considerable value in conducting viability tests of seed. Research under RMA project 355 is being carried out at the Iowa State College seed laboratory to determine the general usefulness of the tetrazolium method.

At the same time that research is being directed toward the techniques of analysis, the Department is seeking causes for variation in results of tests through sampling studies and surveys of State seed-testing laboratories. These studies are designed to provide factual data with regard to the causes for variation. With this information the Department can check against the representativeness of samples taken by inspectors. Different sampling instruments and methods of sampling are studied.

To determine the precise factors which are responsible for variations in results among laboratories, a survey of equipment and procedures used in State seed-testing laboratories is being conducted. Though these surveys at present are limited to official State laboratories, it is anticipated that they will be extended to commercial seed-testing laboratories in the future. Through these visitations the Department is able to offer assistance in many ways as well as to obtain factual information with regard to the causes of variation of results among laboratories. It appears quite likely that these surveys will point up the need of schools or short courses for all experienced seed analysts. The training courses would keep the entire trade informed of new developments and assist in bringing about uniform application of rules and interpretations which are now in effect.

The activities of the United States Department of Agriculture pertaining to the seed industry are being matched by a revival of the Inter-

national Seed Testing Association. This has special significance to tradesmen in the United States for the next meeting is scheduled to be held in Washington, D. C., during the week of May 8, 1950. This will be the first meeting of the association in the United States. The functioning of the International Association was interrupted by the outbreak of the war when the meeting scheduled for 1940 was canceled. Prior to World War II, 38 countries held membership in the association whose purpose is to sponsor methods of testing that will serve in expressing the quality of seed being handled in international trade. International rules for seed testing and basic organization of the association will be major items for discussion at the 1950 meeting.

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1948 COMMERCIAL APPLE PRODUCTION DOWN 20 PERCENT

The 1948 commercial apple crop was estimated at 90,288,000 bushels--20 percent less than the 1947 crop and 22 percent less than average.

Compared with 1947, production was one-third less in the Western and North Atlantic Regions, and one-fourth less in the Midwest. The South Atlantic Region compensated somewhat for these shortages by increasing production two-fifths above the 1947 crop.

The six leading varieties in 1948, in order of importance, were Delicious (18.6 million bushels), Winesap (10.2 million bushels), McIntosh (8.6 million bushels), Johnathon (6.7 million bushels), Rome Beauty (6.3 million bushels), and New York Imperial (5.5 million bushels).

These six varieties totaled 55.9 million bushels, more than three-fifths of the total commercial production. The New York Imperial is the only important variety grown which had a larger production than in 1947. Most York Imperials are grown primarily for processing in the Appalachian area, where the 1947 crop was very short.

Comparing production with 1947 by variety the York Imperial crop was up 37 percent. By contrast, production of the Delicious was down 24 percent, Winesap down 14 percent, McIntosh down 11 percent, Jonathon down 19 percent, Rome Beauty down 6 percent, Yellow Newton down 22 percent and Stayman down 21 percent.

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USE VITAMIN C TO IMPROVE APPLE JUICE

Putting a bottle or a can around that pert and delicious freshness of raw apple juice has been a tough problem for apple processors. Food scientists at the Experiment Station, Geneva, New York, have found that adding vitamin C to chilled raw apple pomace before it is pressed, and storing the fortified juice at low temperatures will aid materially in retaining the original flavor and color of the fresh apples. For practical purposes, good results will be obtained by adding the ascorbic acid at the rate of 6 to 9 grams to a bushel of fruit.

Market Outlets Improved By State RMA Program

By Leighton G. Foster

West Virginia farmers are profiting from a state-wide marketing program that has brought them new markets and income for a variety of farm products. The new marketing outlook is a result of the first year's operation of a Federal-State project conducted under the authority of the Research and Marketing Act of 1946. West Virginia is one of 23 States where such work is being carried out by State Departments of Agriculture and Bureaus of Markets.

In one area in the State last season producers were aided in finding more profitable markets than in other years for 100,000 bushels of potatoes, 12,000 baskets of tomatoes, 100,000 pounds of string beans, tons of cabbage, 120,000 dozens of sweet corn, 150,000 bushels of field corn and thousands of bushels of wheat and other small grains.

A program to improve the marketing of feeder beef cattle was promoted actively in the State and, through widely publicized buying and selling of feeder calves and cattle, the project achieved the desired effect of bringing together cattlemen with a surplus of animals and farmers with an excess of pasture.

Black walnuts, which formerly sold at a cent a pound in small lots, were marketed at three cents a pound in large amounts.

As a result of these successes the State's farmers are planning for greater cooperative efforts, still more outlets for their crops, a livestock grading program, and a system of market reports.

J. B. McLaughlin, Commissioner of Agriculture for West Virginia, recently reported on the results of the marketing program since its beginning in December 1947, and listed objectives for a year ahead.

Cooperation With Extension Service

The work begun under this program in December 1947, was carried out in cooperation with the Agricultural Extension Service. It involved direct contacts with farmers, assemblers, processors, merchants, jobbers and retailers, and meetings, demonstrations, press, radio, posters and handbills. Regional councils, associations, chambers of commerce and businessmen also cooperated.

Principal organizations with which the State marketing men worked were the Little Kanawha Regional Council, Upper Monongahela Valley Association, West Virginia Seed Improvement Association, Future Farmers of America, and the West Virginia Experiment Station.

In addition to the state-wide work on beef cattle, new projects were undertaken with such groups as the Little Kanawha Regional Council through which marketing activities was stimulated and broadened. The council, serving 1,100 farmers in eight counties, is concerned with improving distribution practices and expanding marketing outlets for its predominantly rural area. The principal products disposed of through the council in 1948 were potatoes, tomatoes, string beans, cabbage, sweet corn, field corn, strawberries, eggs, wheat, hay and wool. It also marketed many chickens and cattle.

Farmers Aided in Solving Marketing Problems

A marketing coordinator for the eight counties and a part-time marketing manager for each county were appointed under the Research and Marketing Act program. The coordinator and the managers pointed out the best assembling, grading and packing methods to the farmers. The marketing specialists also tried to coordinate the demands of buyers with the supplies of farmers. Finally, new outlets, not previously used, were found for products of the area. For example, marketing research proved Cleveland to be a good outlet for some of the commodities such as sweet corn. The work of the State groups in improving the picking, handling and shipping of this crop led a Cleveland wholesaler to say that the West Virginia sweet corn was the best he had ever sold.

In another area of the State, a marketing program has been outlined for the Upper Monongahela Valley Association, an organization of farmers of ten counties. The plan is modeled after the marketing work done by the Little Kanawha Council and the principal aim is to survey production and the need for additional markets. According to the plan, county marketing managers were to be appointed, and a three-man marketing committee set up in each county. A marketing committee for the entire area, with county marketing chairmen as its members, was to be established.

After several months of work in West Virginia the initial objectives of the Research and Marketing Act work have been met. These were improvement and expansion of feeder cattle and calf marketing, improvements in harvesting, assembling, packaging, selling and distributing, and establishment of well-organized market outlets. The longer-range objectives concern the relationship between good marketing practices and realization of increased returns to producers. Through the application of these improved practices throughout the marketing channel and through the expansion of marketing outlets, best results will be accomplished.

Plans for the next year's work in West Virginia include: Expansion of the Little Kanawha Regional Council to include 27 additional counties; additional feeder cattle and calf sales through the State; more grading of livestock, and the preparation of specialized market reports concerning sources of supply and potential outlets during the height of the marketing or harvesting season when supplies may be in temporary abundance. The development of adequate market outlets in the mining sections of West Virginia and direct delivery of products from producing areas to good outlets will aid in establishing cooperation with other States on mar-

keting problems. Finally, more adequate basic data on production are desired as a tool for developing the marketing program.

The Little Kanawha Regional Council planned a big winter marketing program. Its plans include a study of 1949 production goals, a survey to determine the agricultural products that sell best, a study of the most acceptable market standards for products, and further consideration of advantageous types of containers. The council also is looking into the most opportune times for marketing, and into seed problems, exchanges to bring together buyers and sellers of feed, livestock, farm machinery and other goods needed by farmers, and better storage facilities.

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MECHANICAL CORN DRYING NEEDED

Corn storage methods acceptable 20 years ago are not adequate today, Claude K. Shedd of the U. S. Department of Agriculture said in a recent address at the annual winter meeting of the American Society of Agricultural Engineers in Chicago. Changes in corn production during the intervening years, he said, have brought entirely new problems in storage.

Shedd explained that 20 years ago hybrid corn was unknown, almost all the crop was husked by hand, and a large part of it was scooped by hand into the crib. Today almost all the commercial crop is grown from hybrid seed, husked by machine, and placed in the crib by elevator.

Present corn storage difficulties have in large part resulted from the change-over to hybrid seed, the USDA engineer said. High-yielding hybrids generally require a long growing season, and when planting is delayed by wet weather or if summer and fall weather is unfavorable, the corn is often not dry enough at harvest time for ordinary crib storage. Other contributing factors to corn storage problems are: (1) machine harvesting; (2) the tendency of operators to start harvesting early and to continue even when the corn is not fully dry; (3) lack of clean husking and increased quantities of shelled corn resulting from machine harvesting; and (4) more or less universal use of elevators for filling cribs, with the result that foreign materials and shelled corn are unevenly distributed in the crib.

Air Forced Through Crib

Farmers can take full advantage of high-yielding, late hybrids, mechanical harvesting, and labor-saving elevators without danger of loss from spoilage by drying corn to safe storage moisture with air forced through the crib, Shedd said. In cooperation with the Iowa, Illinois, Indiana, Michigan, and Ohio Agricultural Experiment Stations, Department of Agriculture engineers successfully dried about 105,000 bushels of corn in 86 farm cribs during the winter of 1947-48 by ventilation with heated air. If unheated air is used in drying, the operation is subject to weather conditioning. But Shedd reported that for several years the Ohio Agricultural Experiment Station and a number of Ohio farmers have been drying corn successfully with unheated air.

PAC Act Helps Trade Settle Its Own Disputes

T. C. Curry

The Perishable Agricultural Commodities Act is a friendly arbitrator of genuine differences of opinion in the wholesale fresh and frozen fruit and vegetable business. To licensees who act in bad faith it is also a stern disciplinarian.

The act prohibits certain unfair practices, and gives a remedy to the injured buyer, seller, commission merchant, or broker. The violations are (1) rejection of the goods by the buyer, without reasonable cause; (2) failure of the seller to make delivery or to make good delivery, without reasonable cause; (3) failure to make a true accounting; (4) failure to pay promptly; (5) making false or misleading statements for a fraudulent purpose; and (6) misbranding of goods.

The act requires commission merchants, dealers, and brokers to be licensed. It provides for denial of license to persons who are found unfit to engage in business. So long as the license remains in good standing, the license is renewable from year to year upon payment of the annual fee of $10. Any person who operates without a license is liable to a penalty of up to $500 for each offense, plus $25 for each day the offense continues.

Friendly Adjustments Encouraged

Complaints may be filed informally--with the Washington office or one of five field offices. USDA representatives in charge of administering the act at once get in touch with the person complained against, investigate the case, and attempt to make a friendly adjustment.

More than 41,000 complaints have been received since the law was enacted in 1930. Of these, 23 percent were for rejection without reasonable cause; 19 percent were for failure to deliver, without reasonable cause; and 52 percent were for failure truly and correctly to account and pay for either consignments or purchased goods.

More than 3,600 formal decisions have been rendered by the Secretary of Agriculture since 1930. Included were some 2,500 awards of reparation involving $1,500,000. Only about 12 percent of the reparation orders have been appealed to the courts, and not more than 5 percent of the decisions appealed have been reversed.

The act and the regulations under it have become a kind of code of ethics in the industry. More and more trade members have shown a willingness to accept informal determinations, which have been reached in over 14,000 of the complaints. Payments totaling more than $8,000,000 have been made under these informal, amicable agreements.

All efforts aimed at informal settlement failing, a formal complaint is submitted. If the formal decision by the Secretary of Agriculture awards reparation, the offender's license is automatically suspended unless he makes payment within a specified time or appeals to the U. S. District Court. It is a violation of the law if he continues to receive, ship, buy, or sell fresh fruit and fresh vegetables in interstate or foreign commerce during the suspension period.

Disciplinary complaints are begun on the basis of information showing repeated or flagrant violations of the act, including failure to make and preserve for 2 years a complete record of every transaction. Disciplinary action has been taken in few cases. During the 18 years the act has been in force, 115 license have been suspended for periods of 10 to 90 days, and 82 licenses have been revoked for repeated or flagrant violations. For failure to pay reparation awards within the time prescribed or to file appeals to the courts, 394 licenses have become automatically suspended until payment was made. Licenses have been denied on formal order of the Secretary of Agriculture in 35 cases. Through suits in Federal courts, judgments with penalties have been rendered against 52 persons for handling fruits or vegetables in interstate commerce without a license. The courts have also issued 19 injunctions against the handling of produce without a license. The judgments ranged in size from nominal sums to $17,500.

World War I Prompted Food Control Act

Because of the speed with which goods are bought and sold, the wholesale fresh fruit and vegetable trade is more vulnerable to sharp practices than some other businesses. The first legislation aimed at bettering business practices in this industry was an emergency measure known as the Food Control Act, approved in August 1917, and enacted as a result of conditions existing during World War I.

The Food Administration's regulations proved so satisfactory that, after the war, the produce trade set about finding a way to continue the benefits it had been receiving. Several trade associations adopted a list of terms and definitions similar to those embodied in the Food Administration regulations.

In November 1921 conferences were begun by the Departments of Commerce and of Agriculture with various trade associations handling perishable agricultural commodities. The conferences resulted in proposals and recommendations that included the adoption of approved rules for the conduct of business. Among other things, the proposals provided for the enrollment of persons and firms that would agree to be bound by trading rules.

The U. S. Department of Agriculture developed a plan of voluntary registration and arbitration of disputes. Under the plan, USDA was to make cooperative agreements with individual shippers, dealers, brokers, commission merchants, or other distributors who handle fresh fruits and vegetables in wholesale quantities. Members were to agree to be governed by standard trading rules, keep adequate records, allow examination of

the records, and settle disputes by arbitration. The plan was discussed, nearly 3,000 trade members agreed to sign up, and 788 persons representing a tonnage of over half a million cars a year had actually signed, when the plan was abandoned because of the passage of the Produce Agency Act in 1927.

The Produce Agency Act is a criminal statute which makes it a misdemeanor for any commission merchant receiving fruits, vegetables, and other perishable farm products, in interstate commerce, to make fraudulent accounting or false or misleading statements, with intent to defraud, or to dump produce without good cause. Unfortunately, this act did not afford adequate regulation of the marketing of fruits and vegetables. Backed by the industry, a bill was then introduced into Congress which finally resulted in passage of the Perishable Agricultural Commodities Act of 1930.

The conditions which caused industry leaders to feel that Federal legislation was necessary for relief can be understood from a reading of the testimony given at hearings held at the time this bill was being discussed. A representative of a trade association said:

"The trade has practically come together and requests that you permit them to put themselves in better position to safeguard contracts. They are no more crooked and no more dishonest than any other men, but they appreciate, after 2 years' experience of licensing, the value of Federal license and the morale which it establishes; and so they have asked the perpetuation of conditions which existed during the 2 years of the war."

PACA Controls Fly-by-nighters

Speaking of a State law that was in effect at the time in California, the representative of the Agricultural Legislative Committee of California said: "It has taken out of the picture the fly-by-night who has interfered seriously with the honest conduct of the business, and by his methods has forced practically all of the rest of them into a type of business practice they did not like to be in."

A large shipper from the State of Washington said:

"The present method of marketing without control is costing the producer many thousands of dollars annually without any corresponding benefit to the consumer. Trade organizations have done a lot of good work, but certainly have been unable to bring about the necessary improvements within the industry to eliminate industrial dishonesty. The produce business is one very easy to enter, and for that reason a lot of cheap crooks are attracted to the game. This element makes it almost impossible for an honest receiver at terminal markets to operate."

The following case was cited by another large shipper from the same State:

"We have a case in an eastern terminal market where we sold a buyer two cars of apples. He took acceptance at shipping point on the basis

of Federal inspections which were taken before the cars were loaded. When the cars arrived at destination the market had declined. As a result the buyer refused to take the cars, claiming they were not what he purchased. We agreed to leave the matter of quality to a verification of our Federal inspection at destination. The buyer refused to do this. We agreed to leave the matter to the arbitration board of any of our national fruit associations, which he also refused to do. The cars sold at a considerable loss. We brought suit against the buyer over 3 years ago, and the case has not yet come to trial. Through various methods the buyer's attorneys have been able to delay this case coming up to trial. This has caused us, up to this time, probably as much expense as the original loss; and yet we are no place."

A Congressman from North Dakota said:

"Naturally shippers do not encounter a great deal of trouble when the market is rising, because then the factor, commission man, or broker at the other end of the line is ready, in fact anxious, to comply with the terms of the contract. But in such a commodity as potatoes there may be a drop of 10, 20, or 30 cents per hundredweight in a few hours or a day, and much larger drops by the time the car reaches the destination point. We know that then the incentive to get away from the contract is so tremendous that very often human nature cannot stand up against it. You also know the difficulties of enforcing that kind of contract--when the deal is made, for instance, between a person in North Dakota and some commission merchant in Texas or some other distant State. There is always an opportunity to go to the courts, but this does not give the shipper an adequate remedy unless the individuals and the corporations you're dealing with are financially responsible, which unfortunately is not always the case."

Amendments Keep Act Up-to-date

The Perishable Agricultural Commodities Act has been amended seven times. The purpose of the amendments was to plug loopholes. No amendments have been made except with industry advice and approval.

A part of the job of administering the act is to review and interpret the terms of contracts. For example, a buyer orders a carload of U. S. No. 1, size A potatoes. The seller confirms a carload of U. S. No. 1 potatoes, omitting the buyer's size A specifications. The result is--no meeting of the minds and no contract. The seller must deliver goods meeting specifications of the contract if he is to demand acceptance by the buyer. Again, in a case where a specification calls for "prompt shipment," but the seller applies on the order a "rolling car," the seller cannot demand the buyer's acceptance, for the reason that shipment has not been made at the time specified.

Opinions based on experience in administering the act for more than 18 years encourage friendly dealings among buyers, sellers, brokers, and receivers, and tend to keep disputes at a minimum. The PAC Act, designed to settle honest differences of opinion impartially, is today an important cog in the fast-moving wholesale fruit and vegetable trade.

Wool Testing Now on a Fee Basis

By Warner M. Buck

Only on Mary's little lamb is the fleece as white as snow. The fleece taken from a run-of-the-range sheep at shearing time is a tattletale gray, or yellow or red, as the color of the local soil may be.

There is more than added color in the raw fleece--there is extra weight--made up of grease, sand, loam, burrs or vegetable matter. These extras ordinarily vary from 35 to 65 percent and at times may make up as much as 75 percent of the average 10-15 pound fleece weight.

Because so much of the weight of raw wool may be extraneous material, the determination of shrinkage--that is, the weight lost in the scouring or cleaning process--is one of the most important considerations in fixing raw wool values. In the past this shrinkage was estimated visually by wool buyers. But producers complained, with some justification, that buyers tended to over-estimate shrinkage, either to allow themselves a safe margin for error or to boost profits.

These complaints led to research by the Production and Marketing Administration's Livestock Branch to develop an accurate, objective method of determining shrinkage. This experimentation was successful. Today, by laboratory analyses of samples "cored" from representative bags of wool, technicians can determine very closely just what the final shrinkage will be. And these determinations are available, for a reasonable fee, to anybody buying or selling wool.

Fee-Testing Started in 1948

Fee-testing, as the new service is called, was started in June 1948 --too late in last year's season to be widely utilized--but its success in that short trial marks it for considerable expansion in 1949. During 1948, a total of 50 lots, amounting to 1,053,574 pounds, grease basis, were tested, and of this, nearly 3/4 came from the Western wool centers of Denver and San Francisco.

Core sampling and testing is by far the most accurate and reliable method known today for the determination of the clean content of raw wool. Sampling methods developed by the Livestock Branch are aimed at an accuracy of plus or minus one percent of the mill yield. In contrast to this, visual estimations of old hands in the business of wool shrinkage estimating might well miss the actual mill shrinkage by 6 to 10 percent. Such error meant that considerable speculation was involved.

After determination has been made at a central laboratory a certificate accurately describing the wool and clean content of the sample is issued to the grower. With this information the wool producer can dispose of his clip at values based on a reliable estimate of the shrinkage percentage. Transactions are further simplified since the certificate

also carries the lot number, the total number of bags or bales in his lot, a description of the wool, the place and date of sampling and any other data pertinent to his particular lot.

The wool samples necessary for the test are cored from the bags or bales by an electrically operated device which might be described as a tubular knife which fills up with sample wool as it cuts through the fleeces in the particular bag cored. This representative wool is promptly stored in moisture proof bags or drums and sent to a laboratory of the Wool Division of the Livestock Branch where it is carefully analyzed for shrinkage. When results are obtained a certificate is promptly sent directly to the applicant. Every effort is made to hold the testing period to 48 hours after receipt of the sample at the laboratory.

Any financially interested party may request a core test by first securing an application blank from the nearest testing center, or from the Livestock Branch, U. S. Department of Agriculture. Wool is tested in the order requests are received and it must be made accessible to the sampling agents. Applicants may furnish the handling incidental to the testing or they may pay for the cost of handling necessarily furnished by the Department.

Charges are set to cover only the costs for the operation and are as follows: For lots of 1 to 50 bags (or bales)- $35.00; 51 to 150 bags- $45.00; 151 to 200 - $50.00; 201 to 300 - $55; and $60 for lots of 300 bags or over.

Re-Tests May Be Granted

In case an applicant for a core-sampling test is not satisfied with the shrinkage determined, an appeal may be requested. In the event a second testing is granted, the party who appeals is charged nothing if the new findings do not fall within the limits of a narrow tolerance set by the Administrator. If the first test is confirmed the applicant for the appeal determination is charged additional costs equivalent to the first fees. The second test is made by different personnel with equally representative samples of the wool.

During the 1949 season fully equipped testing laboratories at Denver, Colorado and Washington, D. C., will be available for core testing on the fee basis. When the proposed commercially-sized pilot plant in Denver is completed additional facilities will be used for refining and improving the core-testing techniques. When it is feasible the Department expects to include with the shrinkage analysis a complete quality test. Growers and buyers alike would be benefitted if reliable information on grade, staple, color, tensile strength, and scourability were known for each lot of wool. This additional information would be particularly useful in the handling of some special wools where quality is best determined before the wool is scoured. Such data on all raw wools would be helpful in determining whether or not it is feasible to scour wool regionally before storage and handling costs have accumulated on the grease weights.

LOW GRADE POTATOES
VALUABLE AS STOCK FEED

Wider utilization of cull potatoes through livestock feeding has been studied and summarized in a publication called "Potatoes for Live-Stock Feed", published earlier this winter by PMA under authority of the Research and Marketing Act. The report was prepared from research completed by State experiment stations, colleges of agriculture, and others familiar with the practice. Its purpose is to encourage a wider use of potatoes as livestock feed during periods when supplies exceed demand for food use.

Every year a substantial quantity of the potato crop is found to be unsuitable for human food or for seed. The quantity varies greatly from place to place and from year to year, according to changes in weather, growing conditions, and production and handling practices. It is estimated from various trade reports and data available in the United States Department of Agriculture that 10 to 20 percent of the national production each year, or, on an average, about 50 million bushels should be classed as culls and unsuitable for human consumption. From the estimated utilization of the crop, it appears that approximately half of this quantity is moved into commercial channels. The remainder includes shrinkage, waste, and the quantity fed to livestock or otherwise used on the farm where grown.

Commercially Marketed Potatoes Should Be Dressed Up

An effective merchandising program is necessary in order to prevent a further decline in national potato consumption. However, such a program has little likelihood of success unless better marketing practices are adopted. The potato industry as a whole should benefit materially by marketing only a product of superior uniform quality. Shippers of table stock potatoes should grade out all poor quality and small potatoes. Shippers of seed potatoes should follow more careful selection practices because seed quality is most important.

The demand for potatoes is highly inelastic. Historically, this characteristic has given rise to the major economic problems of the potato industry. Very little increase in the proportion marketed is associated with a disproportionate reduction in price. The returns to the shipper from the sale of culls and pick-outs normally cover little more than the cost of sacking and loading. If sales of culls and pick-outs cause a significant decline in the price of the higher grades by increasing the total supply of potatoes in the terminal markets, the transaction is highly uneconomical and unprofitable for the industry.

Alternative outlets, of which livestock feed is one, should be increased to absorb an important part of the low-grade and small sized potatoes. If such potatoes could be disposed of locally for feed, the marketing costs would be relatively small as compared with costs of commercial sales for human consumption.

Cotton.--USDA announced January 6 that the Commodity Credit Corporation had sold up to that date a total of 21,686 bales of Upland cotton from its stocks of 1947-crop loan cotton. These stocks, totaling 28,000 bales of Upland and 30 bales of American Egyptian, were pooled for producers' accounts on August 1, 1948, and offered for sale on December 1, 1948.

Fats and Oils.--Supplemental fats, oils and oilseeds export allocations totaling 109 million pounds (oil equivalent), as of Jan. 14, for the January-March quarter of 1949 have been announced by USDA. The allocations include 30 million pounds of lard, 9.3 million pounds of soybean oil, 2.2 million pounds of cottonseed oil, 57 million pounds (oil equivalent) of soybeans (360 million pounds, soybeans weight), 5.5 million pounds (oil equivalent) of shelled peanuts (12.8 million pounds peanuts weight), and 5.0 million pounds of unspecified edible fats and oils.... USDA announced January 26 a supplemental export allocation of 40 million pounds of inedible tallow and grease to "Contingency" for licensing by the Office of International Trade. Of the 40 million pounds, 20 million pounds is to be licensed only as low grade inedible tallow and grease. There is no restriction as to grade on the remaining 20 million pounds.

Fruits and Vegetables.--The U. S. Department of Agriculture announced January 24 that the rates of payment under the citrus fruit export program for products exported through ports other than those in the producing areas was reduced with certain exceptions from the 25 percent of the f.a.s. price, as previously announced by the Department on November 19, to 20 percent. This reduction became effective on January 31, 1949. The rate of 25 percent will still apply to California and Arizona products exported from California ports, Texas products exported from Texas ports, and Florida products exported from Florida ports. The 20 percent rate will apply to all other ports.... The U. S. Department of Agriculture has announced that the period for making sales for export under the Dried Fruit Export Program has been extended for two calendar months. Under this amendment, sales contracts can be made until 12 o'clock midnight, e.s.t., March 31, 1949. All other terms and conditions of the program, originally announced by the Department on November 9, 1948, remain unchanged.

Livestock.--USDA has announced that effective as of February 1 grading fees charged for the Federal meat grading service were increased from $2.70 to $3.00 per hour to provide sufficient revenue to equal the cost of the service. Statutes authorizing the meat grading service require that fees charged for the grading of meats must provide sufficient revenue to defray the costs of the program. The present increase was made following a thorough analysis of the current cost of the voluntary program and after the application of every feasible economy.

Poultry.--A price support program for eggs, designed to reflect 90 percent of parity to producers on a national annual average basis for

1949 as required by legislation was announced in mid-January by the U.S. Department of Agriculture. Again emphasis will be on purchase of dried whole eggs from processors in the Midwest, the area of heaviest egg production in the United States. If dried egg purchases fail to lend adequate support to producer prices, the 1949 program provides in addition (1) for the purchase of frozen eggs in the Midwest, and (2) for the purchase of shell eggs in areas not served by driers or breakers if prices in such areas do not retain their normal relationship to the national average prices. The major program provisions follow the recommendations made by the Poultry Industry Advisory Committee and the State PMA Poultry Advisory Committee at meetings held recently with Department officials in Washington.... In response to inquiry by USDA, Canadian Government officials have expressed the belief that no large-scale export of eggs to the United States seems probable in the first 6 months of 1949. Canadian officials indicate that from February through May, all available eggs above domestic requirement, will be required to meet the 1949 British contract for 19.5 million dozen storage eggs, 3,000 tons of dried eggs and 4,000 tons of frozen eggs. Nearly all available Grade A large and medium eggs for the next 4 months may be required to fill the storage egg commitment. The 1949 contract announced in December for the equivalent of 46 million dozens covers the 11 months, February 1 to December 31.

Development by the Poultry Branch of USDA of standards, grades and sanitary provisions for dressed and ready-to-cook poultry has been authorized by Ralph S. Trigg, Administrator of PMA. The provisions and standards will be issued this spring for voluntary use by the industry as official U. S. Standards. Legislative authority for this action by the Department of Agriculture is contained in the Agricultural Appropriations Act for the fiscal year 1949. The Branch has been authorized to proceed on the basis of recommendations for such standards and grades made by the Poultry Standards and Grades sub-committee of the Poultry Industry Advisory Committee, following a series of regional and national industry conferences. The sub-committee proposals were approved by the Poultry Industry Advisory Committee at a meeting held in Washington early in December. The recommendations, as approved and amended by this Committee, were presented recently to the Administrator of the PMA.

Sugar.--USDA has announced that minimum hourly wage rates to be paid by California sugar beet producers who apply for payments under the Sugar Act of 1948 will be the same for the 1949 crop as for 1948. The rates will be 60 cents an hour for nonharvest work and 65 cents for harvest work. In addition, the producer is required to furnish to the laborer, without charge, the customary perquisites such as a house, garden plot, and similar items. For piecework the rates will be those agreed to by the producer and worker, but the average hourly earnings of workers at these piecework rates must be not less than 60 cents an hour for nonharvest work and 65 cents for harvest work. Last year the Department announced uniform specific piecework rates. Department officials believe that the procedure for the 1949 crop will enable producers and laborers to agree upon piecework rates which will more accurately reflect the wide differences in field conditions and production methods than did the state-wide uniform piecework rates in effect last year.

The following addresses, statements, and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach and mail to the Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

Addresses and Statements:

Agriculture Looks Ahead, by Charles F. Brannan, Secretary of Agriculture at Denver, Colorado, January 12, 1949. 12 pp. (Processed)

Summary of remarks before the Annual Pennsylvania Production Goals Meeting, by Albert J. Loveland, Under Secretary, Department of Agriculture, at Harrisburg, Pa., January 10, 1949. 4 pp. (Processed)

Necessity is the Mother of Co-ops, by Albert J. Loveland, Under Secretary of Agriculture, at Memphis, Tenn., January 5, 1949. 9 pp.(Processed)

The Price Support Picture for 1949, by Ralph S. Trigg, Administrator of PMA and President of CCC, at Harrisburg, Pa., January 10, 1949. (Summary of remarks) 3 pp. (Processed)

Cotton Programs and Services, by Ralph S. Trigg, Administrator of PMA and President of CCC, at Bennettsville, S. C., January 17, 1949. 6 pp. (Processed)

Enough to Eat? by Ralph S. Trigg, Administrator of PMA and President of CCC, at Washington, D. C., January 18, 1949. 6 pp. (Processed)

Measurement of Agricultural Production: Scope of Published Statistics Concerning Agricultural Production, by Charles F. Sarle and Thomas C. M. Robinson (Bureau of Agricultural Economics) at Cleveland, Ohio, December 29, 1948. 13 pp. (Processed)

Publications:

The Columbia, South Carolina Produce Markets. (PMA) January 1949. 120 pp. (Processed)

United States Standards for Grades of Frozen Pineapple. (PMA) January 1949. 11 pp. (Processed)

Farm-to-Retail Margins for White Flour and White Bread. (Bureau of Agricultural Economics) December 1948. 16 pp. (Processed)

School Lunch Recipes Using Fish (Bureau of Home Nutrition and Home Economics and PMA) PA-66, January 1949. 8 pp. (Printed)

The Balance Sheet of Agriculture: 1948 (Bureau of Agricultural Economics) MP-672. 38 pp. (Printed)